

S/N: 09/663,515

Atty Dkt No. FMC 1263 PUS / 200-0029

5. (Amended) The method of Claim 9 wherein said auxiliary system is a brake booster vacuum system.

6. (Amended) The method of Claim 9 wherein said auxiliary system is an air conditioning and heating system.

7. (Amended) The method of Claim 9 wherein said auxiliary system is a purge vapor system.

8. (Amended) The method of Claim 9 wherein said auxiliary system is a catalyst system.

9. (Amended) A method of reducing the number of times a main power unit of a hybrid electric vehicle is activated to support a plurality of auxiliary system of the vehicle during a given drive cycle comprising a sequence of the following steps:

determining the ON/OFF status of said unit;

if the unit is ON requesting that the unit be maintained ON until the value of an auxiliary system parameter exceeds a first threshold value wherein said first threshold value is a unit ON auxiliary system threshold value;

if the unit is OFF requesting that the unit be turned ON when the value of said parameter falls below a second threshold value wherein said second threshold value is a unit OFF auxiliary system threshold value;

setting said unit OFF auxiliary system threshold value when the status of said unit is OFF;

setting said unit ON auxiliary system threshold value when the status of said unit is ON; and

wherein said step of requesting that a unit ON status be maintained is performed if a predetermined parameter in any of said plurality of auxiliary systems is below respective unit ON auxiliary system threshold values, and said step of requesting a unit ON status is performed if a predetermined parameter in any of said plurality of auxiliary systems is below respective unit OFF auxiliary system threshold value.